

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A composition for assisting mucus clearance, the composition comprising one or more mucoactive agents ~~for which assist mucus clearance through one or more of the following mechanisms:~~ reducing cross-linking within the mucus, [; for] diluting the mucus, [; and] ~~for~~ digesting naked DNA and cell debris within the mucus.

Claim 2 (original): A composition as claimed in claim 1, wherein one or more of the mucoactive agents are able to reduce inflammation.

Claim 3 (currently amended): A composition as claimed in claim 1 ~~or 2~~, comprising two or more mucoactive agents.

Claim 4 (canceled)

Claim 5 (currently amended): A composition as claimed in ~~any one of the preceding claims~~ claim 1, comprising one or more glycosaminoglycans.

Claim 6 (currently amended): A composition as claimed in claim 5, wherein the glycosaminoglycan is one or more of the following: heparin ~~and~~~~or~~ and a heparinoid.

Claim 7 (currently amended): A composition as claimed in claim 6, wherein the heparinoid is one or more of the following: danaparoid sodium [; or] and dermatan sulphate.

Claim 8 (original): A composition as claimed in claim 6, wherein the heparinoid contains heparin, dermatan sulphate and chondroitin sulphate.

Claim 9 (currently amended): A composition as claimed in ~~any one of the preceding claims~~ claim 1, comprising a compound selected from the group consisting of: sulfated glucosaminoglycans, glycosaminoglycan polysulphate compounds, ~~or~~ and sulfated mucopolysaccharides.

Claim 10 (currently amended): A composition as claimed in ~~any one of the preceding claims~~ claim 1, further comprising one or more of: a monosaccharide, a disaccharide, and and/or an oligosaccharide.

Claim 11 (currently amended): A composition as claimed in ~~any one of the preceding claims~~ claim 1, further comprising one or more of: dextran, dextrin, glucose and/or and mannitol.

Claim 12 (currently amended): A composition as claimed in ~~any one of the preceding claims~~ claim 1, further comprising an amino acid.

Claim 13 (currently amended): A composition as claimed in ~~any one of the preceding claims~~ claim 1, further comprising one or more of: rhDNase, gelsolin and/or and thymosin β 4.

Claim 14 (currently amended): A composition as claimed in ~~any one of the preceding claims~~ claim 1, further comprising one or more of: acetylcysteine and/or and Nacystelyn.

Claim 15 (currently amended): A composition as claimed in ~~any one of the preceding claims~~ claim 1, wherein the composition is a dry powder for pulmonary inhalation.

Claim 16 (currently amended): A composition as claimed in claim 15, wherein the composition has a less than 5 μm fine particle fraction ($<5\mu\text{m}$) of at least 50%[,] and preferably between 70 and 99% or between 80 and 99%.

Claim 17 (currently amended): A composition as claimed in claim 15 ~~or claim 16~~, wherein the composition has a fine particle dose of between 50 and 90%[,] and preferably between 60 and 70%.

Claim 18 (currently amended): A composition as claimed in any one of claims 15-17 claim 15, comprising particles of at least one mucoactive agent and a force control agent.

Claim 19 (currently amended): A composition as claimed in claim 18, wherein the force control agent is selected from the group consisting of: an amino acid ~~or~~ peptide[,] or derivatives thereof, a phospholipid ~~or~~ and a metal stearate.

Claim 20 (currently amended): A composition as claimed in claim 19, wherein the force control agent is selected from the group consisting of: leucine, lysine, cysteine, ~~or~~ and mixtures thereof.

Claim 21 (currently amended): A composition as claimed in claim 18, wherein the force control agent is included in an amount of up to 50% w/w, ~~preferably less than 10% w/w, and more preferably less than 5% w/w~~.

Claim 22 (currently amended): A composition as claimed in any of claims 15-21 claim 15, wherein the composition comprises particles of mucoactive agent having a MMAD of less than 10 μm .

Claim 23 (currently amended): A composition as claimed in claim 22, wherein the particles of mucoactive agent have a MMAD of from about 2-5 μm 2 to about 5 μm .

Claim 24 (currently amended): A composition as claimed in ~~any one of claims 15-23~~
~~claim 15~~, wherein the composition further comprises carrier particles, ~~preferably wherein~~
~~the carrier particles have a particle size of at least 20 μm~~.

Claim 25 (currently amended): A pharmaceutical composition as claimed in ~~any one~~
~~of claims 1-24~~ claim 1, for use in the treatment of a human patient in need of such
therapy.

Claim 26 (original): A pharmaceutical composition as claimed in claim 25, for treating a
pulmonary disease.

Claim 27 (currently amended): A pharmaceutical composition as claimed in claim 26,
wherein the pulmonary disease ~~involves~~ is selected from the group consisting of:
hypersecretion of mucus ~~or~~ and abnormal viscoelasticity of mucus.

Claim 28 (currently amended): A pharmaceutical composition as claimed in ~~either of~~
~~claims 26 or 27~~ claim 26, wherein the pulmonary disease is selected from the group
consisting of: chronic bronchitis, acute asthma, cystic fibrosis (CF), chronic obstructive
pulmonary disease (COPD) ~~or~~ and bronchiectasis.

Claim 29 (currently amended): A method of treating a pulmonary disease comprising
the administration of a therapeutically effective amount of a pharmaceutical composition
as claimed in ~~any one of claims 1-24~~ claim 1 to a subject in need of such treatment.

Claim 30 (currently amended): A method of producing particles for use in a
composition as claimed in ~~any one of claims 1-24~~ claim 1, the method comprising spray
drying the one or more mucoactive agents in a spray drier.

Claim 31 (currently amended): A method as claimed in claim 30, wherein the step of
spray drying ~~involves the use of a spray drier comprising a means for~~ further includes
producing droplets moving at a controlled velocity.

Claim 32 (original): A method as claimed in claim 31, wherein the velocity of droplets at 5mm from their point of generation is less than 20m/s.

Claim 33 (currently amended): A method as claimed in claim 31 ~~or 32~~, wherein the spray drier comprises an ultrasonic nebuliser.

Claim 34 (currently amended): A method as claimed in ~~any one of claim 31-33 claim 31~~, wherein the one or more mucoactive agents are co-spray dried with a force control agent.

Claim 35 (currently amended): A method of producing particles for use in a composition as claimed in ~~any one of claims 1-24 claim 1~~, the method comprising the step of jet milling particles of the one or more mucoactive agents in the presence of an element selected from the group consisting of: air, ~~or~~ a compressible gas, ~~or~~ and a fluid.

Claim 36 (original): A method as claimed in claim 35, wherein the particles are jet milled in the presence of a force control agent.

Claim 37 (currently amended): A method as claimed in ~~any one claims 35 and 36 claim 35~~, wherein the step of jet milling is carried out at an inlet pressure of between 0.1 and 3 bar.

Claim 38 (currently amended): A method as claimed in ~~any one of claims 35 and 36 claim 35~~, wherein the step of jet milling is carried out at an inlet pressure of between 3 and 12 bar.

Claim 39 (currently amended): A method as claimed in ~~any one of claims 35-38 claim 35~~, wherein at least 90% by volume of the active particles are less than 20 μ m in diameter prior to jet milling.

Claim 40 (currently amended): A method as claimed in ~~any one of claims 30-39~~ claim 30, wherein 90% of the resulting dried particles have a size of less than 10 μ m, as measured by laser diffraction.

Claim 41 (new): The composition as claimed in claim 15, wherein said composition has a fine particle fraction of between 70 and 99%.

Claim 42 (new): The composition as claimed in claim 15, wherein said composition has a fine particle fraction of between 80 and 99%.

Claim 43 (new): The composition as claimed in claim 15, herein said composition has a fine particle dose of between 60 and 70%.

Claim 44 (new): The composition as claimed in claim 18, wherein the force control agent is included in an amount of less than 10% w/w.

Claim 45 (new): The composition as claimed in claim 18, wherein the force control agent is included in an amount of less than 5% w/w.

Claim 46 (new): The composition as claimed in claim 15, wherein the carrier particles have a particle size of at least 20 μ m.